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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/152,008	09/11/1998	SIG H. BADT JR.	ALCA1100-6	8622

25537 7590 01/30/2004

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TECHNOLOGY LAW DEPARTMENT
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EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 01/30/2004

39

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/152,008

Applicant(s)

BADT, SIG H.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-11,13-15,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11,14-15,17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 28.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

The indicated allowability of claims 1, 3-5 and 9-10 is withdrawn under further consideration of Shah et al. (US 5,646,936), Shiragaki (US 5,457,556), Brady (US 6,041,049) and Pekarske (US 5,146,452).

Claim Objections

1. Claims 6 and 8 are objected to because "the various spare ports" in claim 6 should be --various spare ports--. Claim 8 is objected to because it is dependent upon canceled claim 7. Claim 13 is objected to because it is dependent upon canceled claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. Regarding claims 6, 8 and 10, in independent claim 6 and parent claim 9, a keep alive message includes a field set to a specific value when a node is a custodial node (bracketing a failed link). However, keep alive messages are recited in claims 6 and 10 as being exchanged when a DRA event is not in progress (indicating there is no failure within the network). The

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specification on page 3 notes that when a failure occurs traffic is rerouted in a DRA process (see also page 28, lines 18-24) and custodial nodes are selected (Figure 4).

Claim Rejections - 35 USC § 103

Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being obvious over Shah et al. (US 5,646,936) in view of Shiragaki (US 5,457,556) and Brady (US 6,041,049).

3. Regarding claims 1 and 5, Shah discloses a method of real-time mapping a topology of spare capacity (Figure 5; col. 5, lines 66-67; col. 6, lines 17-20) of a DRA-based network. The method comprises the steps of outputting a message from one node to another concerning a spare link (Figure 8) and storing as a topology map the identities of all nodes and spare links interconnecting the nodes (Figures 2 and 5). However, Shah does not disclose identifying the port numbers. Shiragaki discloses a switch having port numbers identifying connections to different working paths and spare paths (col. 6, lines 10-16). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to identify the spare capacity by port number in the invention of Shah in order to distinguish one of several exit paths from a switch. Further, Shah in view of Shiragaki does not disclose storing the network topology information in one location nor providing the generated topology to an origin node. Brady discloses transmitting topology information stored in one location to an origin node (Figure 1; Figure 5, step 24; col. 2, lines 48-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide spare capacity information to an origin node in the invention of Shah in view of Shiragaki in order to provide the node with the available spare capacity of the network to aid in routing.

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4. Regarding claim 4, in Shah, the custodial nodes determine an alternate route using network spare topology (col. 3, lines 20-33, 38-49 and 61-67).

Claim 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah in view of Shiragaki and Brady, as applied to claim 1 above, and further in view of Pekarske (US 5,146,452).

5. Regarding claims 3 and 9, in Shah, the custodial nodes determine an alternate route using network spare topology (col. 3, lines 20-33, 38-49 and 61-67). However, Shah in view of Shiragaki and Brady does not disclose a node transmitting a custodial message via a functional spare link. Pekarske discloses transmitting a message from a node to indicate that it brackets a failed link in order to notify the other nodes of a failure in the network (col. 1, lines 56-65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a custodial message in the invention of Shah in view of Shiragaki and Brady to aid in optimal routing after a network fault.

Allowable Subject Matter

6. Claims 11, 13-15, 17-18 are allowed.

7. Claims 6 and 8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

8. Claim 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The fax number for Technology Center (TC) 2600 is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



January 26, 2003


DANGLTON
TECHNOLOGY CENTER